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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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COMMISSION & SECTION: <u>IDEM/Superfund</u>	NUMBER OF PAGES (INCLUDING COVER PAGE): <u>2</u>

COMMENTS: <u>Here's A copy of regulations concerning discharge of warm water to natural surface water. (comment # 113 ACS Draft Feasibility Study)</u>
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IDEM Stores and Mail (Basement)	(317)232-5539	(317)232-8568
IDEM File Room (9th Floor)	(317)232-3403	(317)232-3399
IDEM Bradbury (Room 30)	(317)243-5092	(317)243-5011
IDEM Air Management (2nd Floor)	(317)233-3257	(317)232-5586
IDEM Commissioner (CEA, Comm. Legal Use Only)	(317)232-8564	(317)232-8162
Drinking Water Branch (Jackson Square)	(317)233-4165	(317)233-4222
Northwest Regional Office (Gary, IN)	(219)881-6745	(219)881-6712

Final Rules

2-1-6

Minimum Surface Water Quality Standards

addition to subsections (a) and (b), the following standards are established to ensure conditions necessary for the maintenance of a well-balanced, warm water fish community. They are applicable at any point in the waters outside of the mixing zone:

(1) Dissolved Oxygen. (3) Concentrations of dissolved oxygen shall average at least five (5.0) mg/l milligrams per liter per calendar day and shall not be less than four (4.0) mg/l milligrams per liter at any time.

(2)(4) The following conditions for temperature:

(A) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.

(B) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.

(C) The maximum temperature rise at any time or place above natural temperatures shall not exceed five degrees Fahrenheit (5° F) (two and eight-tenths degrees Celsius (2.8° C)) in streams and three degrees Fahrenheit (3° F) (one and seven-tenths degrees Celsius (1.7° C)) in lakes and reservoirs.

(D) Water temperature temperatures shall not exceed the maximum limits in the following table during more than one percent (1%) of the hours in the twelve (12) month period ending with any month; at no time shall the water temperature at such locations exceed the maximum limits in the Table 5 by more than three degrees Fahrenheit (3° F) (one and seven-tenths degrees Celsius (1.7° C)).

TABLE 5

	Ohio River Main Stem ° F (° C.)	St. Joseph River Tributary to Lake Michigan Upstream of the Twin Branch Dam ° F (° C.)	Other Indiana Streams ° F (° C.)
January	50 (10.0)	50 (10.0)	50 (10.0)
February	50 (10.0)	50 (10.0)	50 (10.0)
March	60 (15.6)	55 (12.8)	60 (15.6)
April	70 (21.1)	65 (18.3)	70 (21.1)
May	80 (26.7)	75 (23.9)	80 (26.7)
June	87 (30.5)	85 (29.4)	90 (32.2)
July	89 (31.7)	85 (29.4)	90 (32.2)
August	89 (31.7)	85 (29.4)	90 (32.2)
September	87 (30.7)	85 (29.4)	90 (32.2)
October	78 (25.6)	70 (21.1)	78 (25.5)
November	70 (21.1)	60 (15.6)	70 (21.1)
December	57 (14.0)	50 (10.0)	57 (14.0)

(5) The following criteria will be used to regulate ammonia:

(A) Except for waters covered in clauses (B) through (D), at all times, all waters outside of mixing zones shall be free of substances in concentrations which, on the basis of available scientific data, are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

(B) For the Grand Calumet River and Indiana Harbor Ship Canal the following ammonia criteria will apply outside the mixing zone:

(i) East Branch of Grand Calumet River and Indiana Harbor Ship Canal: two-hundredths (0.02) milligrams per liter unionized ammonia.

(ii) West Branch of Grand Calumet River: five-hundredths (0.05) milligrams per liter unionized ammonia.

(iii) For purposes of this subdivision, the West Branch of the Calumet River is defined to be from the Indianapolis Boulevard Bridge (mile point 4.6) to the Indiana-Illinois State Line, and the Indiana Harbor Ship Canal shall be considered to end at the flashing white light (day marker number 2) located at the mouth of the canal.

(C) For waters of Lake Michigan, the following ammonia criteria will apply outside the mixing zone:

(i) For the Inner Harbor Basin, Gary Harbor, and Burns Harbor, unionized ammonia will not exceed three-hundredths (0.03) milligram per liter as a monthly average nor ten-hundredths (0.10) milligram per liter as a daily maximum.

(ii) For all other Lake Michigan waters, unionized ammonia shall not exceed two-hundredths (0.02) milligram per liter as a monthly average nor five-hundredths (0.05) milligram per liter as a daily maximum.

(iii) For purposes of this subdivision, the Inner Harbor Basin shall be defined as the area within an inscribed arc of six thousand (6,000) feet radius drawn from the flashing white light (day marker number 2) located at the mouth of the Indiana Harbor, and Gary Harbor and Burns Harbor shall be the waters enclosed by the Gary Harbor and Burns Harbor breakwaters.

(D) For those waters listed in subsection (c), the following ammonia criteria will apply outside the mixing zone: